

REMARKS

Entry of the amendment instructions presented herewith and favorable reconsideration and allowance of this application are requested.

I. Introductory Comments

By way of the amendment instructions above, independent claim 1 has been amended so as to include define the thermoplastic elastomer to a *polypropylene* thermoplastic elastomer. In addition, the subject matter of prior claim 11 has been incorporated into claim 1 and as such, claim 11 has been cancelled as redundant. Claim 5 has been amended so as to define that the propylene thermoplastic elastomer comprises a blend of polypropylene and rubber compositions

Support for the claim revisions submitted herewith can be found in the originally filed application at age 5, 2 lines from page bottom to page 6, line 2.

Claims 1-5, 7-10, and 12-14 therefore will be pending following entry of the claim amendments presented herewith.

II. Response to Art-Based Rejections

The only issues remaining to be resolved in this application are the Examiner's art-based rejections. In this regard, the Examiner persists in her rejection of the pending claims based on either JP 56-062,835 or EP 449,685.¹ In this regard, the Examiner asserts that the hindered amine species of the present invention and that disclosed in the JP '835 reference render "obvious" (35 USC §103(a)) claims 1-5 and 7-14. Claims 1-5 and 9-12, on the other hand, have been rejected alternatively under 35 USC §§102(b) or 103(a) from EP '685. Applicants emphatically disagree.

¹ The Examiner incorrectly cites the JP '835 reference as EP 56-062,835. Correction of the same in the next official communication will be appreciated to maintain the integrity of the Official Record.

A. Preliminary Comments on Patentability of Claimed Subject Matter

It will be observed that the amended version of claim 1 requires that the claimed thermoplastic elastomer composition be a *polypropylene* thermoplastic elastomer and that the amount of the defined hindered amine photostabilizer is specified to be 0.10 to 0.50 parts by weight. Thus the present invention provides an automobile interior or exterior trim material which comprises a thermoplastic elastomer composition containing a polypropylene thermoplastic elastomer which exhibits excellent weather resistance, and resistance to weather-induced coloring. The excellent weather resistance is one of the features of the automobile interior or exterior trim material of the present invention (see in this regard, page 5, last paragraph through page 6, first paragraph).

Although the applied JP '835 reference describes a combination of an alkyl benzoate compound and N-H type piperidyl hindered amine (see more detailed discussion of this reference below), it does **not** describe or suggest the use of a N-CH₃ type piperidyl hindered amine compound in stead of the N-H type piperidyl hindered amine. Accordingly, JP '835 cannot possibly suggest improvements to weather resistance that may be accomplished by the combination of an alkyl benzoate compound and a N-CH₃ type piperidyl hindered amine compound. Furthermore, JP '835 does not describe a ***polypropylene*** elastomer as employed in the practice of the present invention nor suggest its the use for an automobile interior or exterior trim material.

EP '685 describes a combination of a hindered amine having a N-CH₃ type piperidyl hindered amine compound and an arylbenzoate (see more detailed discussion of this reference below), but does not describe or suggest a use of an alkylbenzoate instead of the arylbenzoate. Moreover, EP '685 does not describe or suggest at all that the combination of a N-CH₃ type piperidyl hindered amine compound and an alkyl benzoate compound could provide improvements in weather resistance and resistance to weather-induced coloring.

A comparison between Example 1 with Comparative Example 1-2 of the present application shows that the combination of a N-CH₃ type piperidyl hindered amine compound and an *alkyl*benzoate(Example 1) is superior to the combination of a N-CH₃ type piperidyl hindered amine compound and an *aryl*benzoate (Comparative Example 1-2) in terms of weather resistance.

The applied JP '835 and EP '685 references, respectively, disclose compositions which exert an effect by means of a combination of additives. In this regard, each combination of additives used JP '835 or EP '685 has a specified meaning and exerts a specified effect. Thus, it is manifestly unreasonable to assert that the arylbenzoate required to be used in the EP '685 reference may be substituted for the alkylbenzoate in the JP '835 reference. There simply is no motivation for an ordinarily skilled person to replace the arylbenzoate prescribed in EP '685 with the alkylbenzoate of JP '845. And, as noted above, the Examples present in the subject application demonstrate that there is certainly no equivalency therebetween.

It is suggested that such a substitution as proposed by the Examiner can be accomplish only hindsight, which is of course to be strictly avoided.² Specifically, it is clear that such a substitution is only made by hindsight since it is known only by the present invention that a polypropylene thermoplastic elastomer, in which a N-CH₃ type piperidyl hindered amine compound and an alkylbenzoate are combined, synergistically exhibit excellent weather resistance.

Although JP '835 and EP '685 may arguably disclose in isolation certain materials employed by the present invention, a combination of specific materials which satisfies constituent features of the present invention, namely a polypropylene

² The Federal Circuit regards hindsight as an insidious and powerful phenomenon and is a tempting, but forbidden zone in the inquiry of addressing the statutory obviousness standard. See, e.g., *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337 (Fed. Cir. 1985) and *Loctite Corp. v. Ultraseal Ltd.*, 228 USPQ 90, 98 (Fed. Cir. 1985).

thermoplastic elastomer composition of an automobile interior or exterior material excellent in weather resistance, is clearly not contemplated therein.

B. Additional Declaration Evidence

In consideration of the points advanced by the Examiner with respect to the prior Declaration evidence of record, there is attached hereto a further Declaration by one of the coinventors of the present invention, Mr. Fukushima (hereinafter "the Fukushima II Declaration"). The attached Fukushima II Declaration evidences that a combination of a N-CH₃ type piperidyl hindered amine photostabilizer and an alkylbenzoate is superior to combination of a N-H type piperidyl hindered amine photostabilizer and an alkylbenzoate in terms of improvements to weather resistance imparted to a polypropylene thermoplastic elastomer composition. Thus, there is no equivalence nor predictability as between H-CH₃ and N-H types of photostabilizers.

The Examiner's comments seem to indicate that, since the claims at issue here to not specifically recite improvements in weather resistance, then the proffered Declaration evidence is not persuasive as to patentability. Applicants respectfully disagree since the Examiner has proffered a position which is based *inter alia* on the assertion that it is "obvious" to substitute one material disclosed in a prior art reference for another material. Given that the claims herein are directed toward an automobile interior or exterior component, the Examiner surely must take Official Notice of the fact that weather resistant would be an important criterion. Therefore, the evidence of record unmistakably shows that such an important criterion in the context of the claimed article cannot be derived "obviously" by simply picking and choosing among individual component materials that may be disclosed in JP '835 and/or EP '685. Hence, the proffered Declaration evidence of record is entirely germane to, and persuasive of, the *unobviousness* of the present invention.

C. Detailed Comments Regarding Applied References

As has been noted during prosecution to date, the JP '835 reference discloses a method for improving weather resistance of polyolefine composition by the combined use of a triazine compound (a) having a 2,2,6,6-tetra-methyl-4-piperidyl group, which is termed as a N-H type piperidyl group, and a 3,5-di-t-butyl-4-hydroxy-benzoic acid hexadecyl (b). The alkyl benzoate used in the JP '835 reference is 3,5-di-tertially butyl-4-hydroxy-benzoic acid-hexadecyl (b), which may be argued to overlap the claimed alkyl benzoate compound used in the thermoplastic elastomer composition relating to the present invention. However, the hindered amine compound represented by formula (I) of JP '835 is a triazine compound (a) having N-H type piperidyl moieties in its molecule.

In contrast, the hindered amine photostabilizer contained in the thermoplastic elastomer composition in accordance with the present invention -- that is a hindered amine having a 1,2,2,6,6-pentamethyl-4-piperidyl group -- has N-CH₃ type piperidyl moieties in its molecule. Therefore the hindered amine compound used in the present invention is structurally different from that of the applied JP '835 reference.

The applied EP '685 reference describes a polypropylene resin composition comprising a polypropylene resin mixture of polypropylene, 5-40 % by weight (based on the mixed composition) of α -olefin copolymer rubber, and 5-40 % by weight of a filler, and compound (A), (B), (C), (D), (E), and (F), each of which is clearly different from the components employed in the practice of the present invention as described below.

Judging from the description of page 6, lines 17 to 26 of EP '685, compound (A) is a hindered phenolic compound and is different from the hindered amine photostabilizer component employed in accordance with the present invention.

Compound (B) is a high molecular weight hindered piperidine compound and is different from the hindered amine photostabilizer of the present invention, because while the hindered amine photostabilizer of the present invention has a N-CH₃ type piperidyl group, the compound (B) has N-H type piperidyl groups in a molecule.

Compound (C) is a low molecular weight hindered piperidine compound. As shown on the page 3 of EP '685, both R₁ in formula (C-1) and R₂ in (C-2) may have a methyl group. A low molecular weight hindered piperidine compound having a N-H type piperidyl group (R₁ is hydrogen atom in (C-1)) is used in the example 1 of EP '685, and a low molecular hindered piperidine compound having a N-H type piperidyl group (R₂ is hydrogen atom in (C-2)) is used in the example 6 of EP '685. In the case when the N-R₂ of a piperidyl group is N-CH₃ in the formula (C-2), the hindered piperidine compound will correspond to a carboxylic acid ester of 1,2,2,6,6-pentamethyl-4-piperidinol.

Compound (D) is a benzoate compound as represented by (D-1), which corresponds to a kind of an aryl benzoate compound. In contrast, the benzoate compound employed in the practice of present invention is an alkyl benzoate compound. As noted above, the advantage of a combination of hindered amine photostabilizer having piperidyl groups in the structure and an alkylbenzoate compound over a combination of hindered amine photostabilizer having piperidyl groups and an arylbenzoate compound is shown in the Example 1 and Comparative Examples 1-2 of the originally filed specification. A phosphorus containing antioxidant is disclosed in EP '685 as formula (E-3).

Accordingly, the present invention is not anticipated by EP '685, because EP '685 does not describe either an alkylbenzoate relating to the present invention, or the combination of the alkylbenzoate and the hindered amine having a N-CH₃ type piperidyl group in the structure.

Nor can the JP '835 and EP '685 references render the present invention obvious under 35 USC §103(a).

As mentioned above, JP '835 discloses an alkylbenzoate compound which corresponds to that of the present invention, but does not describe a hindered amine photostabilizer having a N-CH₃ type piperidyl groups in its molecule. The JP '835 reference also does not describe or suggest any advantage that may ensue from use of the hindered amine photostabilizer having the N-CH₃ type piperidyl groups as compared to a hindered amine having N-H type piperidyl groups in its molecule. In contrast, EP '685 does not describe an alkylbenzoate compound which corresponds to that of the present invention, nor suggest any advantage of an alkylbenzoate compound as compared to an arylbenzoate compound. Furthermore, neither JP '835 nor EP '685 describe or suggest any advantage that may ensue by the combination of hindered amine photostabilizer having a N-CH₃ type piperidyl group in the molecule and an alkylbenzoate compound as compared to a combination of hindered amine photostabilizer having a N-H type piperidyl group and an arylbenzoate compound.

Accordingly, the present invention which contains a polypropylene thermoplastic elastomer composition comprising a combination of an *alkyl*benzoate compound and a hindered amine photostabilizer having a N-CH₃ type piperidyl groups in its molecule is not achieved by the combination of JP '835 and EP '685 references. As such, the present invention is not rendered "obvious" therefrom under 35 USC §103(a).

III. Conclusion

Every effort has been made to advance prosecution of this application to allowance. Therefore, in view of the remarks and evidence provided during prosecution to date, it is submitted that this application is in condition for prompt allowance and early Official Notice to that effect is solicited.

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Should any small matter remain outstanding, the Examiner is encouraged to telephone the applicants' undersigned attorney so that the same may be resolved without the need for a further written action and reply.

Respectfully submitted,

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